12. ADDITIONAL COMPONENTS OF THE RECORD OF DECISION

Several activities will be implemented at WAG 1 to complete the selected remedy, in addition to the remediation that will be applied to specific sites. These additional activities are institutional controls and the disposition of IDW, and are discussed in the following sections.

12.1 Institutional Controls

In addition to and as part of the selected remedial actions identified in Sections 7, 8, and 9 of this ROD, institutional controls will be maintained at selected sites within WAG 1 because residual contamination will preclude unrestricted land use. The sites that will be managed, either fully or partially, by institutional controls are discussed below. Future WAG 1 activities will include the development of a WAG 1 institutional control plan.

12.1.1 Institutional Controls in Waste Area Group 1

Institutional controls will be maintained by the DOE at any CERCLA site at the INEEL where residual contamination precludes unrestricted land use. "No Action" sites are sites where the current residential, current occupational, and future residential risks are all less than or equal to 1E-04. "No Action" sites do not require institutional controls and allow unrestricted land use. Five-year reviews are not required. "No Further Action" sites require institutional controls and will undergo 5-year reviews as described in this ROD. "No Further Action" sites have a current residential risk greater than 1E-04, but a current occupational and future residential risk less than or equal to 1E-04. "No Further Action" sites can also be sites with acceptable risks, but with notable uncertainty in the risk calculations. These controls will remain in place at each site for at least 100 years or until the site is released for unrestricted use in a 5-year review, as discussed in Section 10 in this ROD.

No additional remediation will be conducted under CERCLA for 83 of the 94 sites identified in WAG 1. However, land-use control will be maintained at seven (plus three subsites of TSF-06 for a total of 10 institutional control areas) of these sites because risk from residual contamination precludes unrestricted land use. Therefore, these sites are identified for institutional controls. Institutional controls may be discontinued during the 5-year review process. The Mercury Spill Area, TSF-08, may require additional remediation under CERCLA, based upon treatability study results.

Institutional controls will be maintained in the interim until the selected remedy has been implemented at all eight sites identified in this ROD for remediation, and will be maintained until remediation is complete. Long-term institutional control requirements for these sites will be determined based on the analysis of post-remediation confirmation samples.

In accordance with INEEL land-use plans (DOE-ID 1997a) DOE will provide institutional controls for sites subject to land-use restrictions over the next 100 years unless a 5-year review concludes that unrestricted land use is allowable. After 100 years, DOE may no longer manage INEEL activities and controls will take the form of land-use restrictions. Though land use after 100 years is highly uncertain, it is likely that industrial applications will continue at the INEEL and WAG 1. The Hall Amendment of the National Defense Authorization Act of 1994 (Public Law 103-160) requires concurrence from EPA on the lease of any National Priorities List sites during the period of DOE control and CERCLA [42 USC 9620 § 120(h)] requires that the state be notified of a lease involving contamination. When DOE no longer manages INEEL activities and controls are needed, CERCLA [42 USC 9620 § 120(h)] requires that DOE indicate the presence of contamination and any restrictions in property transfer documentation.

Institutional controls will be applied initially to 18 (TSF-06 has four separate areas that require institutional controls, for a total of 21 areas of institutional controls) of the 94 sites in WAG 1, and will not be required for the other 76 sites. A summary of the analysis conducted to identify "No Action" and institutional control sites is presented in Table 12-1. A preliminary description of the controls that will apply is provided in Table 12-2 and the estimated costs for implementing and maintaining institutional controls for the "No Further Action" sites for 100 years are summarized in Table 12-3. An institutional control plan for WAG 1 will be prepared in conjunction with the development of remedial action/remedial design documents to identify the specific measures that will be implemented at each site. The list of sites requiring institutional controls will change over time as remediation is completed and 5-year reviews are conducted.

12.1.2 Institutional Control Plan for Waste Area Group 1

A comprehensive approach for establishing, implementing, enforcing, and monitoring institutional controls at the INEEL, including WAG 1, will be developed in accordance with EPA Region 10 policy (EPA 1999). The comprehensive INEEL approach will contain the following elements specifically for WAG 1 in accordance with the EPA policy:

- A comprehensive listing of all areas or locations in WAG 1 that have or will have institutional controls for protection of human health or the environment. The list will include sites within WAG 1 covered by any and all decision documents. The information on this list will include, at a minimum, the location of the area, the objectives of the restriction or control, the timeframe for which the restrictions apply, and the tools and procedures that will be applied to implement the restrictions or controls and to evaluate the effectiveness of these restrictions or controls.

- Cover and legally bind where appropriate, all entities and persons, including, but not limited to, employees, contractors, lessees, agents, licensees, and invitees relevant to WAG 1 institutional controls.

- Cover all activities, and reasonably anticipated future activities, including, but not limited to, future soil disturbance, routine and nonroutine utility work, well placement and drilling, grazing activities, groundwater withdrawals, paving, construction, renovation work or structures, or other activities that could occur on CERCLA sites with institutional controls.

- A tracking mechanism that identifies all land areas under restriction or control.

- A process to promptly notify both EPA and the State of Idaho before any anticipated change in land-use designation, restriction, land users, or activity for any institutional control required by a decision document.

In addition, the comprehensive WAG 1 approach will incorporate by reference the INEEL facility-wide land-use plan, installation maps, a comprehensive permitting system, and other installation policies and orders.

Table 12-1. "No Action" sites and sites requiring institutional controls in Waste Area Group 1.

Site Code	Site Name	"No Action" Sites[a]	Sites Requiring Institutional Controls[b]	Site Status	Basis for Recommendation
IET-01	IET Gasoline Storage Tank	X	—	OU 1-07B ROD "No Action" site. The tank contents were removed in September 1991. The tank and the associated piping were removed in August 1992. There were no holes in either the tank or the associated piping, and no visually stained or discolored soil was observed in the tank excavation.	Tank system removed; no evidence of contamination.
IET-02	IET Burial Pit Northeast of IET	X	—	FFA/CO "No Action" site. No hazardous materials had been disposed of and no environmental damage was evident from site observation.	No evidence of contamination.
IET-04	IET Stack Rubble Site	—	X[c]	IET-04 contains buried rubble from the IET exhaust stack and monitoring vault. The site currently is buried 4.6 to 6.1 m (15 to 20 ft) bgs after decontamination and decommissioning in 1986 and 1987. Suspected concentrations pose risks >1E-04.	Suspected risk >1E-04.
IET-05	IET Foam Stabilizer Tank	X	—	OU 1-07B ROD "No Action" site. The storage tank and its associated piping were removed in 1990. There were no holes in either the tank or the associated piping, and no visually stained or discolored soil was observed in the tank excavation.	No evidence of contamination.
IET-06	IET Injection Well	X	—	The well was used to discharge treated sanitary sewage and process wastewater; it was converted to a monitoring well in 1980. No potentially hazardous substances were identified in a risk assessment.	No evidence of contamination.
IET-07	IET Hot Waste Tank	X	—	The tank and associated piping were removed in 1985; no holes or leaks were found in the tank and no stained soil was observed in the tank excavation. Surveys did not detect radioactivity above background levels. No reports of releases from tank.	Tank system removed; no evidence of contamination.
IET-08	IET Septic Tank and Filter Bed	X	—	FFA/CO "No Action" site. Cs-137, U-238, and Sr-90 were detected in sludge samples from the tank more than one order of magnitude below risk-based levels; neither of the liquid samples from the septic tank showed detectable levels of radioactivity.	Remaining risk <1E-04.

Table 12-1. (continued).

Site Code	Site Name	"No Action" Sites[a]	Sites Requiring Institutional Controls[b]	Site Status	Basis for Recommendation
IET-09	IET Lube Oil Tank	X	—	OU 1-07B ROD "No Action" site. The tank contents were removed in September 1991. The tank and the associated piping were removed in October 1991. Soil samples indicated no traces of contamination.	Tank system removed; no evidence of contamination.
IET-10	IET Diesel Fuel Tank	X	—	OU 1-07B ROD "No Action" site. Removal of the storage tank, its contents, and the associated piping was completed in 1990. Samples detected traces of xylene over three orders of magnitude below risk-based concentrations, and a qualitative risk evaluation indicated that the TPH does not pose an unacceptable risk.	Tank system removed. Remaining risk <1E-04.
IET-11	IET Heating Oil Tank	X	—	OU 1-07B ROD "No Action" site. Removal of the tank, its contents, and the associated piping was completed in 1990. Samples detected traces of ethylbenzene, toluene, and xylene at least three orders of magnitude below risk-based concentrations.	Tank system removed. Remaining risk <1E-04.
LOFT-01	LOFT Diesel Fuel Spills	X	—	OU 1-07B ROD "No Action" site. The contaminated soil in the ditch was excavated and removed in 1990. Soil sample analysis detected traces of toluene, ethylbenzene, and xylene over three orders of magnitude below risk-based concentrations, and a qualitative risk evaluation indicated that the TPH does not pose an unacceptable risk.	Soil contamination removed. Remaining risk <1E-04.
LOFT-02	LOFT Disposal Pond	X	—	Unlined disposal pond that has received industrial, cooling, and sanitary wastewater since 1975. Currently managed by SMC Operations. Risk determined in Track 2 risk evaluation is in the E-05 range.	Active disposal pond; risk is <1E-04.
LOFT-03	LOFT Rubble Pit South of LOFT Disposal Pond	X	—	OU 1-07B ROD "No Action" site. Construction debris was removed and disposed of at the Central Facilities Area (CFA) landfill in 1987 or 1988. No hazardous or radioactive material was found during the cleanup operation. No asbestos-containing material was encountered.	No evidence of contamination.
LOFT-04	LOFT Injection Well	X	—	FFA/CO "No Action" site. LOFT-04 was used only for disposal of uncontaminated wastewater resulting from LOFT operations.	No evidence of contamination.

Table 12-1. (continued).

Site Code	Site Name	"No Action" Sites[a]	Sites Requiring Institutional Controls[b]	Site Status	Basis for Recommendation
LOFT-05	LOFT Two Fuel Tanks	X	—	OU 1-07B ROD "No Action" site. The tank contents were removed in 1991; the tanks and associated piping remain in place pending future use. No evidence of suspected or known releases.	No evidence of contamination.
LOFT-06	LOFT Slop Tank East of TAN-631	X	—	OU 1-07B ROD "No Action" site. Available drawings and documentation indicate the tank contents were removed about 1965 and the tank was filled with sand. An asphalt road and parking lot now cover the site. No surface contamination was visible in a 1966 aerial photograph before the road was built; geophysical surveys in 1990 and 1993 did not locate the tank.	No evidence of contamination.
LOFT-07	LOFT Foam Solution Tank	X	—	The contents of the tank were sampled in 1991, 1993, and 1994. Based on sampling results, the tank and residual waste contents were removed in July 1994 and properly disposed. Concentration detected Cr and Sr-90 at least one order of magnitude below risk-based concentrations.	Remaining risk <1E-04.
LOFT-08	LOFT Tank in Borrow Pits	X	—	OU 1-07B ROD "No Action" site. In January 1990, the tank and the associated piping were removed. Samples collected from the tank excavation detected traces of toluene, ethylbenzene, and xylene over three orders of magnitude below risk-based concentrations.	Tank system removed. Remaining risk <1E-04.
LOFT-09	LOFT Septic Tank and Drain Field	X	—	FFA/CO "No Action" site. Nothing but domestic sanitary waste had ever entered the septic system and there was no evidence of historical or threatened release.	No evidence of contamination.
LOFT-10	LOFT Sulfuric Acid Spill	X	—	OU 1-07B ROD "No Action" site. Two sulfuric acid spills occurred in 1983. Approximately 0.5 yd^3 of contaminated soil was excavated and disposed of at that time. A 1991 site investigation and soil testing revealed that no acid remained in the shallow soil.	Soil contamination removed; no evidence of contamination.
LOFT-11	LOFT Cryogen Pits (3) East of TAN-629	X	—	OU 1-07B ROD "No Action" site. The pits were intended for the disposal of liquid nitrogen, but the experiment was canceled in 1967 before the pits were ever used. No known or suspected hazardous or radioactive materials were disposed at LOFT-11.	No evidence of contamination.

Table 12-1. (continued).

Site Code	Site Name	"No Action" Sites[a]	Sites Requiring Institutional Controls[b]	Site Status	Basis for Recommendation
LOFT-12	LOFT North Transformer Yard PCB Spill and Soil Site	X	—	A removal action with a target cleanup level of 1.0 mg/kg was completed in 1994. Verification sampling indicated that the PCB-contaminated soil had been adequately remediated. Current residential risk of 1E-04, current occupational risk of 1E-07, and future residential risk of 1E-04.	Risk ≤1E-04.
LOFT-13	LOFT Dry Well	X	—	FFA/CO "No Action" site. In August 1991, the well was backfilled and the area was surveyed for VOCs and radioactivity.	No evidence of contamination.
LOFT-14	LOFT Asbestos Piping	X	—	OU 1-07B ROD "No Action" site. In July 1991, all the asbestos was removed from the pipe, packaged, and disposed of in the asbestos area at the CFA landfill. The metal pipe and the underlying soil were also disposed of at the CFA Landfill.	Asbestos contamination removed.
LOFT-15	LOFT Buried Asbestos Pit	X	—	OU 1-07B ROD "No Action" site. In March 1992 all of the asbestos-contaminated soil and most of the original burn layer was removed. Exploratory trenches and soil sampling failed to reveal any detectable asbestos at levels above 1%.	Asbestos contamination removed.
LOFT-16	LOFT Landfill Northeast of LOFT-02 Drainage Pond	X	—	Landfill operational from 1973 to 1980 and used for disposal of excess construction materials and equipment. No burning of waste is believed to have occurred. When the landfill reached capacity, earth-moving equipment backfilled the site, compacted the soil, and graded the area. Analytical results confirm that only very low levels of contamination from VOCs is present in the landfill and there is no appreciable source.	No evidence of source of contamination.
SMC-01	SMC Septic Tank and Drain Field	X	—	FFA/CO "No Action" site. The initial assessment indicated that no hazardous or radioactive materials are associated with the system.	No evidence of contamination.
TSF-01	TSF Diesel Tank West of TAN-607 and Fuel Spill	X	—	OU 1-07B ROD "No Action" site. The tank, its contents, and the associated piping were removed in September 1991. Approximately 96 yd^3 of contaminated soil was removed from the site. Sampling detected ethylbenzene and xylene over three orders of magnitude below risk-based concentrations, and a qualitative risk evaluation indicated that the TPH does not pose an unacceptable risk.	Remaining risk <1E-04.

Table 12-1. (continued).

Site Code	Site Name	"No Action" Sites[a]	Sites Requiring Institutional Controls[b]	Site Status	Basis for Recommendation
TSF-02	TSF Service Station Spill	X	—	The soil from the TSF-02 spill area was removed when the INEL Road Program rebuilt and repaved the road in front of TAN-664 from 1986 to 1987 and when the service station was upgraded in 1991.	Soil contamination removed; no evidence of source of contamination.
TSF-03	TSF Burn Pit	—	X	TSF-03 has been backfilled, subsidence control maintained, and vegetation has been reestablished. No contaminants were detected that pose risks >E-04; however, lead was detected at concentrations greater than EPA's 400 mg/kg residential cleanup level. Native soil cover will be placed over TSF-03.	After remedial action, lead concentrations will still be greater than EPA residential cleanup level.
TSF-04	TSF Gravel Pit/Acid Pit	X	—	OU 1-07B ROD "No Action" site. One 55-gal drum of sulfuric acid was reportedly disposed sometime between 1958 and 1959. Sulfuric acid would have been quickly neutralized by the naturally alkaline soil. A 1990 field inspection revealed no evidence of stressed vegetation or surface stains at the site.	No evidence of contamination.
TSF-05	TSF Injection Well	—	X	Remedial Action from OU 1-07B ROD signed August 1995. Since 1988, elevated concentrations of trichloroethylene and other volatile organics have been detected as well as some radionuclides. Future residential risk is greater than 1E-04.	Ongoing treatment of groundwater. Remedial action will meet MCLs.
TSF-06	TSF TAN/TSF-01 Area (Soil Area)	N/A	N/A	See separate areas below.	See separate areas below.
	• Area 1	—	X	Current residential risk 1E-03, current occupational risk of 2E-04, and future residential risk of 2E-04.	Risk >1E-04.
	• Area 3	X	—	Current residential risk of 1E-04, current occupational risk of 1E-07, and future residential risk of 1E-04.	Risk ≤1E-04.
	• Area 5	—	X	Current residential risk of 3E-04, current occupational risk of 9E-05, and future residential risk of 1E-04.	Risk >1E-04.
	• Area 7	X	—	Current residential risk of 1E-04, current occupational risk of 3E-06, and future residential risk of 1E-04.	Risk ≤1E-04.

Table 12-1. (continued).

Site Code	Site Name	"No Action" Sites[a]	Sites Requiring Institutional Controls[b]	Site Status	Basis for Recommendation
	• Area 8	X	—	Current residential risk of 1E-04, current occupational risk of 9E-06, and future residential risk of 1E-04.	Risk ≤1E-04.
	• Area 9	X	—	Current residential risk of 1E-04, current occupational risk of 5E-06, and future residential risk of 1E-04.	Risk ≤1E-04.
	• Area 10	X	—	The OU 1-10 Comprehensive RI/FS identified no COPCs for TSF-06, Area 10.	Contaminant screening process determined there were no COPCs.
	• Area 11	—	X	Current residential risk of 3E-04, current occupational risk of 1E-04, and future residential risk of 1E-04.	Risk >1E-04.
	• Area B	—	X	Current occupational and future residential risk >E-04. Remedial action will excavate and dispose contaminated soil.	Risk >1E-04. ICs will only be needed if contamination after excavation is present above FRGs.
TSF-07	TSF Disposal Pond	—	X	Current occupational risk of 1E-03 and future residential risk of 8E-04. Remedial action will be limited action, consisting of additional institutional controls and environmental monitoring.	Risk >1E-04. ICs are part of selected remedy.
TSF-08	TSF HTRE III Mercury Spill Sites 13B and 13C	—	X	Treatability studies will be conducted under WAG 10; remedial action by WAG 1 if required. Current residential risk is 1E-04, future occupational risk is 8E-07, and future residential risk is 1E-04. Site has a HI of 30 from mercury.	Mercury HI >1.
TSF-09	TSF Intermediate-Level (Radioactive) Waste Disposal System	—	X	Current and future occupational risk, as well as future residential risk >E-04. Remedial action will excavate and dispose contaminated soil and treat and dispose tank contents.	Risk >1E-04. Only needed if contamination after excavation is present above FRGs.
TSF-10	Drainage Pond	—	X[c]	Radiation field surveys detected no evidence of contamination, and site visits showed no evidence of stressed vegetation. Metals and low-level radionuclide contamination may be present. Current residential risk of 2E-04, current occupational risk of 3E-05, and future residential risk of 1E-04.	Risk >1E-04.

Table 12-1. (continued).

Site Code	Site Name	"No Action" Sites[a]	Sites Requiring Institutional Controls[b]	Site Status	Basis for Recommendation
TSF-11	TSF Three Clarifier Pits East of TAN-604	X	—	The clarifier pits were removed in May 1994. Current residential risk 1E-04, current occupational risk 1E-07, and future residential risk of 1E-04.	Risk ≤1E-04.
TSF-12	TSF Acid Neutralization Sump North of TAN-602	X	—	The tanks operated for less than 3 years, and are not known to have leaked during that period. Preliminary scoping information showed that one tank is filled with sand and covered by a building and the other has been removed.	No evidence of contamination.
TSF-13	TSF Gasoline Tank North of TAN-610	X	—	OU 1-07B ROD "No Action" site. The tank and its contents were removed about 1980. No releases were recorded and none are known to have occurred. Photo ionization detector (PID) detected no organic vapors in site soil.	Tank system removed; no evidence of contamination.
TSF-14	TSF Fuel Oil Tank Northwest of TAN-603	X	—	OU 1-07B ROD "No Action" site. The tank, its contents, and the associated piping were removed in 1991. Diesel-contaminated soil was present below the fill pipe. Benzene, toluene, ethylbenzene, and xylene were detected in soil samples from the excavation more than two orders of magnitude below risk-based concentrations.	Tank system removed. Remaining risk <1E-04.
TSF-15	TSF Fuel Tank West of TAN-603	X	—	OU 1-07B ROD "No Action" site. The tank, its contents, and the associated piping were removed in August 1990. TPH detected in excavation; risk analysis showed that TPH concentrations would not pose an unacceptable risk via the soil ingestion pathway.	Tank system removed. Remaining risk <1E-04.
TSF-16	TSF Brine Pit North of TAN-608	X	—	FFA/CO "No Action" site. Findings from the summary assessment indicate that waste is nonhazardous and there is no known evidence of any historical or threatened releases.	No evidence of contamination.
TSF-17	TSF Two Acid Neutralization Pits North of TAN-649	X	—	TSF-17 consists of one tank with two chambers formerly used to treat acidic effluent from a demineralization process. The tank was removed in August 1993. Data taken during the removal action indicate the tank did not leak.	Tank removed; no evidence of contamination.

Table 12-1. (continued).

Site Code	Site Name	"No Action" Sites[a]	Sites Requiring Institutional Controls[b]	Site Status	Basis for Recommendation
TSF-18	Contaminated Tank Southeast of Tank V-3	—	X	Current and future occupational risk, as well as future residential risk >E-04. Remedial action will excavate and dispose contaminated soil and treat and dispose tank contents.	Risk >1E-04. Only needed if contamination after excavation is present above FRGs.
TSF-19	TSF Caustics Tank V-4 South of TAN-616	X	—	Historical information indicated that the tank never leaked. Site investigations and field surveys have shown that the tank is empty and that no internal contamination is present. The tank is presently not used, and is buried 3 m (10 ft) deep and partially beneath a building.	No evidence of contamination.
TSF-20	TSF Two Neutralization Pits North of TAN-607	X	—	The tank, its contents, and surrounding soil were removed in October 1993. Soil samples indicated metals and Cs-137 are below risk-based concentrations or background levels.	Tank removed; no evidence of source of contamination. Remaining risk <1E-04.
TSF-21	TSF IET Valve Pit	X	—	The valve pit was removed in November 1993. Residual radionuclide and volatile organic contamination may exist. Current residential risk of 1E-04, current occupational risk of 1E-07, and future residential risk of 1E-04.	Risk ≤1E-04.
TSF-22	TSF Railroad Turntable	X	—	In the 1980s, the wooden planking on the turntable was replaced. A number of "hot spots" were detected on the original planking and were removed and disposed of as low-level radioactive waste at RWMC. Soil samples collected in 1993 indicate that no contaminants are present above risk-based concentrations. Current residential risk of 1E-04, current occupational risk of 4E-05, and future residential risk of 1E-04.	Risk ≤1E-04.
TSF-23	Contaminated Groundwater Beneath TSF	—	X	Remedial Action from OU 1-07B ROD signed August 1995. Since 1988, elevated concentrations of trichloroethylene and other volatile organics have been detected as well as some radionuclides. Future residential risk is greater than 1E-04.	Ongoing treatment of groundwater. Remedial action will meet MCLs.

Table 12-1. (continued).

Site Code	Site Name	"No Action" Sites[a]	Sites Requiring Institutional Controls[b]	Site Status	Basis for Recommendation
TSF-24	TSF Fuel Oil Tank Under Southwest Corner of TAN-607	X	—	OU 1-07B ROD "No Action" site. The tank, associated piping, and some soil with detectable contamination were removed in September 1990. Soil sample analysis indicated no further organic contamination.	Tank system and contaminated soil removed; no evidence of contamination.
TSF-25	TSF Oil Sumps East of TAN-609	X	—	OU 1-07B ROD "No Action" site. The sump was abandoned in 1987 and the floor drain to the sump was filled with concrete. Sample analysis from August 1993 confirm benzene concentrations three orders of magnitude below risk-based levels.	Risk <1E-04.
TSF-26	TSF PM-2A Tanks	—	X	Current and future occupational risk, as well as future residential risk >1E-04. Remedial action will excavate and dispose contaminated soil and treat and dispose tank contents.	Risk >1E-04. Only needed if contamination after excavation is present above FRGs.
TSF-27	TSF Paint Shop Drain	X	—	Only beryllium was found above risk-based concentrations, however, beryllium is naturally occurring and concentrations were less than twice the background concentration.	No evidence of source of contamination.
TSF-28	TSF Sewage Treatment Plant and Sludge Drying Beds	—	X[c]	The sewage treatment plant received small quantities of paint thinner and radioactive contamination. Detected levels of Co-60 and Cs-137 were determined to pose an acceptable risk. The Track 2 Decision Statement determined the site needed further evaluation; however, a verbal agreement between the Agencies during the preparation of the RI/FS classified the site as "No Further Action" in the RI/FS and Proposed Plans. Further sample data are needed to document this determination and to perform a risk assessment to quantify the site risk.	Will require institutional control until further risk assessment determines risk is ≤1E-04.
TSF-29	TSF Acid Pond	—	X[c]	Site investigations, field surveys, and soil data indicate random, isolated radioactive particles in the backfilled soil. Current residential risk of 3E-04, current occupational risk of 1E-04, and future residential risk of 1E-04.	Risk >1E-04.

Table 12-1. (continued).

Site Code	Site Name	"No Action" Sites[a]	Sites Requiring Institutional Controls[b]	Site Status	Basis for Recommendation
TSF-30	TSF Septic Tank East of TAN-602	X	—	FFA/CO "No Action" site. The system was used for the treatment of sanitary waste. There is no evidence of hazardous waste disposal.	No evidence of contamination.
TSF-31	TSF Acid Pit West of TAN-647	X	—	Radiation field surveys have not detected any evidence of contamination, and site visits have not shown any evidence of stressed vegetation or stained soil. A review of aerial photographs from the 1960s through the 1990s reveals no evidence of disposal activities at the site.	No evidence of contamination.
TSF-32	TSF Oil Tank South of TAN-601	X	—	OU 1-07B ROD "No Action" site. The tank and associated piping are believed to have been removed sometime between the late 1950s and 1967. An asphalt road and parking lot currently cover the site. Geophysical surveys performed in 1990 and 1991 did not locate the tank. No known releases have occurred.	No evidence of contamination.
TSF-33	TSF T-11 Fuel Tank East of TAN-602	X	—	OU 1-07B ROD "No Action" site. The tank, its contents, and the associated piping were removed in August 1990. Soil sample analysis detected no organic contamination.	Tank system removed; no evidence of contamination.
TSF-34	Fuel Tank South of TAN-607	X	—	A 1991 search for the tank using subsurface radar and a metal detector provided no evidence that the tank was still in place. No evidence of any releases of hazardous substances, pollutants, or contaminants.	No evidence of contamination.
TSF-35	Acid Sump Southeast of TAN-609	X	—	Interviews indicate that no acid was ever discharged to the sump. Anecdotal information indicated that the only wastewater to enter the sump was water from botanical experiments and snowmelt from vehicles brought into TAN-609 for maintenance activities.	No evidence of contamination.
TSF-36	TSF TAN-603 French Drain	X	—	Records indicate the drain was last used in 1980. All available drawings and documentation indicate the French Drain was designed and used for handling steam condensate from the boilers only. The drain was removed in the spring of 1995. Current residential risk of 1E-04, current occupational risk of 1E-07, and future residential risk of 1E-04.	Risk ≤1E-04.

Table 12-1. (continued).

Site Code	Site Name	"No Action" Sites[a]	Sites Requiring Institutional Controls[b]	Site Status	Basis for Recommendation
TSF-37	TSF Contaminated Well Water Spill	X	—	Site of an 83,160-L (22,000-gal) spill in 1988 from an aboveground tank that stored water from purging and sampling of TSF-05. Current residential risk of 1E-04, current occupational risk of 1E-07, and future residential risk of 1E-04.	Risk ≤1E-04.
TSF-38	TSF Bottle Site	X	—	The surface contamination was remediated as part of a cleanup effort by DOE in March 1992. In March 1994, a time-critical CERCLA removal action was initiated to remove any hazardous waste, debris, and contaminated soil present at TSF-38. The OU 1-10 Comprehensive RI/FS identified no COPCs for TSF-38.	Contaminant screening process determined there were no COPCs.
TSF-39	TSF Transite (Asbestos) Contamination	—	X[d]	OU 1-07B ROD "No Action" site. The area contains small pieces of asbestos cement. Inspections have determined that the asbestos is tightly encapsulated in cement and is not likely to be released. However, friable asbestos may be released if pulverized or crushed.	Asbestos contamination is present.
TSF-40	Rubble Pile Near TAN	X	—	Concrete rubble and other types of construction material were disposed of at this site. An asbestos cleanup was performed in 1989 and there is no evidence of any historical or threatened releases of hazardous substances, pollutants, or contaminants.	No evidence of contamination.
TSF-41	Scrap Yard South	X	—	Scrap dealers removed batteries and an asbestos cleanup was performed in 1989. There is no evidence that any historical or threatened releases of hazardous substances, pollutants, or contaminants from TSF-41 present a danger to public health or the environment.	No evidence of contamination.
TSF-42	TAN-607-A Room 161 Contaminated Pipe	—	X[c]	The pipe is internally contaminated with radioactive material, surrounded by concrete, and located under the floor of Room 161 in TAN-607-A. The contamination is fixed and no environmental releases have occurred.	Institutional Control until building D&D. Risk is unknown.

Table 12-1. (continued).

Site Code	Site Name	"No Action" Sites[a]	Sites Requiring Institutional Controls[b]	Site Status	Basis for Recommendation
TSF-43	RPSSA Buildings 647/648 and Pads	—	X[c]	The TAN-647 building is an interim status storage unit for certain hazardous wastes under the INEEL RCRA Interim Status program. Any contamination that creates a future risk will be removed during the closure of the site as an Interim Status facility.	Institutional Control until closure of the site as an Interim Status facility.
TSF-44	TSF Diesel Fuel Pipeline Leak Northwest of TAN-604	X	—	TSF-44 is the location of diesel fuel releases caused by leaks in the line running from the main storage tanks to the boilers. After each release the contaminated soil was removed and disposed at the TAN borrow pit. A 1994 environmental survey detected no organic vapors and no physical evidence of fuel leakage. Sampling results indicated no detectable VOCs.	No evidence of contamination.
TSF-45	AEC Burial Pit	X	—	The pit was used for construction waste disposal during and after renovations of the LOFT facility. No hazardous or radioactive materials were disposed at TSF-45 according to personnel interviews and work records.	No evidence of contamination.
WRRTF-01	WRRTF Burn Pits I, II, III, and IV	—	X	The burn pits have been backfilled and vegetation reestablished. Current and future total residential risk of 1E-04. Lead was detected at concentrations greater than EPA's 400 mg/kg residential cleanup level. Native soil cover will be placed over WRRTF-01.	After remedial action, lead concentrations will still be greater than EPA residential cleanup level.
WRRTF-02	WRRTF Two-Phase Pond	X	—	OU 1-07B ROD "No Action" site. The effluent to the pond consisted of primarily steam condensate and process wastewater. Site inspections revealed no evidence of contamination, stained soil, or stressed vegetation.	No evidence of contamination.
WRRTF-03	WRRTF Evaporation Pond	X	—	OU 1-07B ROD "No Action" site. Records indicate that only low concentrations of inorganic contaminants were discharged to the pond. Site inspections revealed no evidence of contamination, stained soil, or stressed vegetation. No source of contamination exists at the pond.	No evidence of contamination.
WRRTF-04	WRRTF Radioactive Liquid Waste Tank	X	—	The tank and associated piping were removed in August 1993. No holes or leaks were detected. No known releases. OU 1-10 BRA contaminant screening process identified no COPCs.	Contaminant screening process determined there were no COPCs.

Table 12-1. (continued).

Site Code	Site Name	"No Action" Sites[a]	Sites Requiring Institutional Controls[b]	Site Status	Basis for Recommendation
WRRTF-05	WRRTF Injection Well	X	—	Two one-time releases of approximately 50 mCi Co-60 in 1969 and 212 L (56 gal) of turbine oil have been documented as released to the well. Samples collected after the May 1995 RI/FS scoping meetings detected no contaminant concentrations above drinking water standards. There is no indication of a continuing source of contamination.	No evidence of source of contamination.
WRRTF-06	WRRTF Sewage Lagoon	X	—	OU 1-07B ROD "No Action" site. Unlined surface impoundment that received nonhazardous sanitary and process waste from 1984 to the present. Site inspections revealed no evidence of contamination, stained soil, or stressed vegetation. No known hazardous or radioactive discharges to the pond.	No evidence of contamination.
WRRTF-07	WRRTF Septic Tank and Sand Filters	X	—	FFA/CO "No Action" site. The only known waste discharged to the system was from building toilets and wash sinks; no hazardous or radioactive materials are associated with the system.	No evidence of contamination.
WRRTF-09	WRRTF Diesel Fuel Tank	X	—	OU 1-07B ROD "No Action" site. The tank, its contents, and the associated piping were removed in August 1990. Soil sample analysis detected TPH below 1,000 mg/kg action level (maximum concentration was 110 mg/kg TPH).	Tank system removed. Remaining contamination below action levels.
WRRTF-10	WRRTF Gasoline Tank	X	—	OU 1-07B ROD "No Action" site. The tank, its contents, and the associated piping were removed in August 1990. Contaminated soil removed from excavation. Soil sample analysis detected no organic contamination.	Tank system removed; no evidence of source of contamination.
WRRTF-12	WRRTF Diesel Fuel Tank	X	—	OU 1-07B ROD "No Action" site. The tank, its contents, associated piping, and contaminated soil around the tank were removed in August 1990. Soil sample results detected traces of toluene, ethylbenzene, and xylene over three orders of magnitude below risk-based concentrations.	Tank system and soil contamination removed. Remaining risk <1E-04.

Table 12-1. (continued).

Site Code	Site Name	"No Action" Sites[a]	Sites Requiring Institutional Controls[b]	Site Status	Basis for Recommendation
WRRTF-13	WRRTF Fuel Leak	—	X	Calculation of numeric health risk values for fuel is not possible. State of Idaho residential guidelines were used to determine need for cleanup. Remedial action to consist of excavation & land farming.	Fuel contamination is present. ICs will only be needed if contamination after excavation exceeds FRGs.
None	IET Pond and Ditch West of IET	X	—	Construction of the ditch and pit is evident in a 1954 photograph. A site survey performed in March 1994, which included monitoring for VOCs, mercury, and radiation, found no evidence of contamination.	No evidence of contamination.
None	IET Gravel Pit	X	—	Review of a 1976 photograph indicates a quarry site northeast of IET. A site survey was performed in March of 1994, which included VOC, mercury, and radiation monitoring. No evidence of contamination was observed.	No evidence of contamination.
None	IET Burn Pit East of IET	X	—	A 1954 photograph indicates a burn pit west of the facility. A site survey was performed in March of 1994, which included monitoring for VOCs, mercury, and radiation. No evidence of contamination was observed.	No evidence of contamination.
None	LOFT Burn Pit Northwest of LOFT	X	—	Photographs from 1972 and 1973 indicate a burn pit located northwest of the LOFT Hangar Building. A site survey was performed in March of 1994, which included monitoring for VOCs, mercury, and radiation. No evidence of contamination was observed.	No evidence of contamination.
None	TSF Burn Pit II Southwest of the TSF-05 Injection Well	X	—	Photographs from 1957 indicate a burn pit south of TSF-10 pond. The burn pit was active until 1959. A site survey was performed in March of 1994, which included monitoring for VOCs, mercury, and radiation. No evidence of contamination was observed.	No evidence of contamination.
None	TSF Radioactive Spills on Bear Blvd. West of TAN-607	X	—	There were reports of spills of radioactive liquids along Bear Blvd. A site survey was performed in March of 1994, which included monitoring for VOCs, mercury, and radiation. No evidence of contamination was observed.	No evidence of contamination.

Table 12-1. (continued).

Site Code	Site Name	"No Action" Sites[a]	Sites Requiring Institutional Controls[b]	Site Status	Basis for Recommendation
None	Radioactive Spill 1 mi South of TAN on Lincoln Blvd.	X		A uranium contaminated water spill occurred south of WRRTF along Lincoln Blvd.; however, a site survey in March 1994 did not reveal field radiation measurements above background for the area.	No evidence of contamination.
None	Sand Piles South of TSF and Southwest of WRRTF	X	—	Piles of sand containing a rust-like material were identified, sampled, and analyzed for toxicity characteristic leaching procedure constituents in August 1993. No evidence of contamination was found.	No evidence of contamination.
None	WRRTF Transite Area	X	—	This is a reported construction debris area containing small pieces of transite cement. Site visits and field screening detected no evidence of hazardous waste, hazardous substances or hazardous constituents at the site.	No evidence of contamination.
None	Broken Pipe in Berm East of TAN-633	X	—	This proposed site is a broken pipe located in the berm east of TAN-633. Previous disposal of liquids down the pipe leading to Tanks TSF-17 and TSF-21 was confirmed through employee interviews. The lines have been cleaned out. There is no residual contamination suspected in the system.	No evidence of contamination.
None	Buried Asbestos Behind the Hanger at SMC	X	—	Buried asbestos insulation was encountered while digging a trench in 1989. The occurrence was previously reported and designated as LOFT-16.	Designated as LOFT-16.

a. Unrestricted land use can be allowed for "No Action" sites, and 5-year reviews are not required.

b. Unless specified otherwise, land use will be restricted at each institutional control site until 2099, or until the site is released for unrestricted land use through a 5-year review.

c. The identification of the site as a "No Action" site was revised from the classification presented in the OU 1-10 Proposed Plan in accordance with EPA Region 10 Final Policy on the Use of Institutional Controls at Federal Facilities (EPA 1999).

d. Site classification as a "No Action" site in the OU 1-07B ROD has been changed in accordance with EPA Region 10 Final Policy on the Use of Institutional Controls at Federal Facilities (EPA 1999).

Table 12-2. Institutional control requirements for Waste Area Group 1.

Timeframe	Land Restriction[a]	Exposure Concern	Objective	Controls	Regulatory Basis or Authority
Sites TSF-06 Area B, TSF-09/18, TSF-26 – Radionuclide-contaminated soil will be removed by excavation. Current occupational risks are greater than 1E-04. Remedial action is expected to remove all contaminated soils above risk-based levels. Long-term institutional controls will only be required if contamination is left in place that exceeds 1E-04 risk. Institutional controls, if required, will be implemented until risk is ≤1E-04 as documented in a 5-year review.					
Current DOE operations until final action implemented	Industrial – Radiologically Controlled Area	Radionuclides – external radiation	Limited direct exposure to radiologically contaminated soil.	1. Visible access restrictions 2. Control of activities	FFA/CO (DOE-ID 1991) Worker protection (10 CFR 835) Radiation protection of the public and ALARA principles (DOE Order 5400.5) National Oil and Hazardous Substances Pollution Control Plan (40 CFR Part 300) CERCLA (42 USC 9620 § 120(h))
DOE control post operations	Industrial – Radiologically Controlled Area	Radionuclides – external radiation	Ensure land use is appropriate if contamination is left in place	Property lease requirements including control of land use, if necessary	FFA/CO (DOE-ID 1991) CERCLA (42 USC 9620 § 120(h)(5))[b] Hall Amendment of the National Defense Authorization Act (Public Law 103-160)[c] Property release restrictions (DOE Order 5400.5)
Post-DOE control	Industrial	Radionuclides – external radiation	Ensure land use is appropriate if contamination is left in place	Property transfer requirements including issuance of a finding of suitability to transfer and control of land use, if necessary	FFA/CO (DOE-ID 1991) CERCLA (42 USC 9620 § 120(h)(3))[d] CERCLA (42 USC 9620 § 120(h)(3)(C)(ii))[e] CERCLA (42 USC 9620 § 120(h)(3)(A)(iii))[f] CERCLA (42 USC 9620 § 120(h)(1)-(3))[g] CERCLA (42 USC 9620 § 120(h)(4))[h] Property relinquishment notification (43 CFR 2372.1)[i] Criterion for U.S. Bureau of Land Management acceptance of property (43 CFR 2374.2)[j] Excess property reporting requirements (41 CFR 101-47.202-1,-2,-7)[k] Property release restrictions (DOE Order 5400.5)

Table 12-2. (continued).

Timeframe	Land Restriction[a]	Exposure Concern	Objective	Controls	Regulatory Basis or Authority
Sites TSF-03, WRRTF-01 – Lead contamination will be left in place above EPA's residential guidelines. Current occupational risks cannot be calculated for lead, however, best management practices will prevent current occupational worker contact with contaminated soil. Native soil cover will be placed over contaminated area to provide a standoff cover to prevent access to the underlying contaminated soil. Institutional controls will be used indefinitely, unless the site is released based upon documentation in a 5-year review.					
Current DOE operations until final action implemented	Industrial	Lead	Limit exposure to contaminated soil Maintain integrity of native cover and/or engineered cover	1. Visible access restrictions 2. Control of activities	FFA/CO (DOE-ID 1991)
DOE control post operations	Industrial	Lead	Maintain integrity of native cover and/or engineered cover	1. Visible access restrictions 2. Control of activities Property lease requirements including control of land use	FFA/CO (DOE-ID 1991) CERCLA (42 USC 9620 § 120(h)(5))[b] Hall Amendment of the National Defense Authorization Act (Public Law 103-160)[c] Property release restrictions (DOE Order 5400.5)
Post-DOE control	Industrial	Lead	Maintain integrity of native cover and/or engineered cover	Property transfer requirements including issuance of a finding of suitability to transfer and control of land use	FFA/CO (DOE/ID 1991) CERCLA (42 USC 9620 § 120(h)(3))[d] CERCLA (42 USC 9620 § 120(h)(3)(C)(ii))[e] CERCLA (42 USC 9620 § 120(h)(3)(A)(iii))[f] CERCLA (42 USC 9620 § 120(h)(1)-(3))[g] CERCLA (42 USC 9620 § 120(h)(4))[h] Property relinquishment notification (43 CFR 2372.1)[i] Criterion for BLM acceptance of property (43 CFR 2374.2)[j] Excess property reporting requirements (41 CFR 101-47.202-1,-2,-7)[k] Property release restrictions (DOE Order 5400.5)

Table 12-2. (continued).

Timeframe	Land Restriction[a]	Exposure Concern	Objective	Controls	Regulatory Basis or Authority
Site WRRTF-13 – Fuel-contaminated soil will be removed by excavation. Current occupational risks cannot be calculated for TPH, however, best management practices will prevent current occupational worker contact with contaminated soil. Remedial action is expected to remove all contaminated soils above FRGs, which will be determined using the State of Idaho RBCA guidance. Long-term institutional controls will only be required if contamination is left in place that exceeds the FRGs. Institutional controls, if required, will be implemented until the remaining risk meets acceptable State of Idaho RBCA guidance levels, as documented in a 5-year review.					
Current DOE operations until final action implemented	Industrial	Fuel	Limited exposure to contaminated soil	1. Visible access restrictions 2. Control of activities	FFA/CO (DOE-ID 1991)
DOE control post operations	Industrial	Fuel	Ensure land use is appropriate if contamination is left in place	Property lease requirements including control of land use, if necessary	FFA/CO (DOE-ID 1991) CERCLA (42 USC 9620 § 120(h)(5))[b] Hall Amendment of the National Defense Authorization Act (Public Law 103-160)[c] Property release restrictions (DOE Order 5400.5)
Post-DOE control	Industrial	Fuel	Ensure land use is appropriate if contamination is left in place	Property transfer requirements including issuance of a finding of suitability to transfer and control of land use, if necessary	FFA/CO (DOE-ID 1991) CERCLA (42 USC 9620 § 120(h)(3))[d] CERCLA (42 USC 9620 § 120(h)(3)(C)(ii))[e] CERCLA (42 USC 9620 § 120(h)(3)(A)(iii))[f] CERCLA (42 USC 9620 § 120(h)(1)-(3))[g] CERCLA (42 USC 9620 § 120(h)(4))[h] Property relinquishment notification (43 CFR 2372.1)[i] Criterion for BLM acceptance of property (43 CFR 2374.2)[j] Excess property reporting requirements (41 CFR 101-47.202-1,-2,-7)[k] Property release restrictions (DOE Order 5400.5)

Table 12-2. (continued).

Timeframe	Land Restriction[a]	Exposure Concern	Objective	Controls	Regulatory Basis or Authority
Site TSF-07 – Selected remedial action remedy is Limited Action, of which institutional controls is a primary component. Institutional controls will be maintained until 2099 or until risk is ≤1E-04 as documented in a 5-year review.					
Current DOE operations	Industrial – Radiologically Controlled Area	Radionuclides – external radiation	Limited direct exposure to radiologically contaminated soil	1. Visible access restrictions 2. Control of activities	FFA/CO (DOE-ID 1991) Worker protection (10 CFR 835) Radiation protection of the public and ALARA principles (DOE Order 5400.5) National Oil and Hazardous Substances Pollution Control Plan (40 CFR Part 300) CERCLA (42 USC 9620 § 120(h))
DOE control post operations	Industrial – Radiologically Controlled Area	Radionuclides – external radiation	Limited direct exposure to radiologically contaminated soil	1. Visible access restrictions 2. Control of activities Property lease requirements including control of land use	FFA/CO (DOE-ID 1991) CERCLA (42 USC 9620 § 120(h)(5))[b] Hall Amendment of the National Defense Authorization Act (Public Law 103-160)[c] Property release restrictions (DOE Order 5400.5)
Post-DOE control	Industrial	Radionuclides – external radiation	Limited direct exposure to radiologically contaminated soil	Property transfer requirements including issuance of a finding of suitability to transfer and control of land use	FFA/CO (DOE_ID 1991) CERCLA (42 USC 9620 § 120(h)(3))[d] CERCLA (42 USC 9620 § 120(h)(3)(C)(ii))[e] CERCLA (42 USC 9620 § 120(h)(3)(A)(iii))[f] CERCLA (42 USC 9620 § 120(h)(1)-(3))[g] CERCLA (42 USC 9620 § 120(h)(4))[h] Property relinquishment notification (43 CFR 2372.1)[i] Criterion for BLM acceptance of property (43 CFR 2374.2)[j] Excess property reporting requirements (41 CFR 101-47.202-1,-2,-7)[k] Property release restrictions (DOE Order 5400.5)

Table 12-2. (continued).

Timeframe	Land Restriction[a]	Exposure Concern	Objective	Controls	Regulatory Basis or Authority
Sites IET-04, TSF-06 Area 1, TSF-06 Area 5, TSF-06 Area 11, TSF-08, TSF-10, TSF-28, TSF-29, TSF-39, TSF-42, TSF-43 – Risk at these sites is either not completely characterized, calculated risk or known remaining contamination does not allow unrestricted land use (the current residential risk is >1E-04 or HI greater than 1), or requires institutional controls until site is further dispositioned (see Table 12-1 for site status). Institutional controls will be provided until 2099 or until the risk is ≤1E-04 as documented in a 5-year review.					
DOE control	Industrial	Radionuclides Mercury Asbestos (varies by site)	Limited exposure to contaminated soil Ensure land use is appropriate	1. Visible access restrictions 2. Control of activities Property lease requirements including control of land use, if necessary	FFA/CO (DOE-ID 1991) National Oil and Hazardous Substances Pollution Control Plan (40 CFR Part 300) CERCLA (42 USC 9620 § 120(h)) CERCLA (42 USC 9620 § 120(h)(5))[b] Hall Amendment of the National Defense Authorization Act (Public Law 103-160)[c] Property release restrictions (DOE Order 5400.5)
Post-DOE control	Industrial	Radionuclides Mercury Asbestos (varies by site)	Ensure land use is appropriate	Property transfer requirements including issuance of a finding of suitability to transfer and control of land use, if necessary	FFA/CO (DOE-ID 1991) CERCLA (42 USC 9620 § 120(h)(3))[d] CERCLA (42 USC 9620 § 120(h)(3)(C)(ii))[e] CERCLA (42 USC 9620 § 120(h)(3)(A)(iii))[f] CERCLA (42 USC 9620 § 120(h)(1)-(3))[g] CERCLA (42 USC 9620 § 120(h)(4))[h] Property relinquishment notification (43 CFR 2372.1)[i] Criterion for BLM acceptance of property (43 CFR 2374.2)[j] Excess property reporting requirements (41 CFR 101-47.202-1,-2,-7)[k] Property release restrictions (DOE Order 5400.5)

Table 12-2. (continued).

Timeframe	Land Restriction[a]	Exposure Concern	Objective	Controls	Regulatory Basis or Authority
Sites TSF-05 and TSF-23 – These sites are under the OU 1-07B ROD, signed August 1995. This ROD (OU 1-10) provides institutional control requirements for the sites. Groundwater contamination exceeds MCLs or risk-based levels, as documented in the OU 1-07B ROD. The selected remedial action, currently underway, is expected to achieve cleanup by 2095. Institutional controls will be provided until 2095 or until the risk from these sites reach acceptable levels (as identified in the OU 1-07B ROD) or contaminant concentrations are below MCLs, as documented in a 5-year review.					
DOE control	Industrial	Radionuclides – ingestion Organics – ingestion	Prevent consumption and use of groundwater >MCL and/or 1E-04 risk	1. Visible access restrictions 2. Control of activities 3. Prevent well drilling Property lease requirements including control of land use, if required based on results of remedial action	FFA/CO (DOE-ID 1991) National Oil and Hazardous Substances Pollution Control Plan (40 CFR Part 300) CERCLA (42 USC 9620 § 120(h)) CERCLA (42 USC 9620 § 120(h)(5))[b] Hall Amendment of the National Defense Authorization Act (Public Law 103-160)[c] Property release restrictions (DOE Order 5400.5)
Post-DOE control	Industrial	Radionuclides – ingestion Organics – ingestion	Prevent consumption and use of groundwater >MCL and/or 1E-04 risk	Property transfer requirements including issuance of a finding of suitability to transfer and control of land use, if required based on results of remedial action	FFA/CO (DOE-ID 1991) CERCLA (42 USC 9620 § 120(h)(3))[d] CERCLA (42 USC 9620 § 120(h)(3)(C)(ii))[e] CERCLA (42 USC 9620 § 120(h)(3)(A)(iii))[f] CERCLA (42 USC 9620 § 120(h)(1)-(3))[g] CERCLA (42 USC 9620 § 120(h)(4))[h] Property relinquishment notification (43 CFR 2372.1)[i] Criterion for BLM acceptance of property (43 CFR 2374.2)[j] Excess property reporting requirements (41 CFR 101-47.202-1,-2,-7)[k] Property release restrictions (DOE Order 5400.5)

Table 12-2. (continued).

Timeframe	Land Restriction[a]	Exposure Concern	Objective	Controls	Regulatory Basis or Authority

a. Institutional controls are applicable only to sites where hazardous substances, pollutants, or contaminants are present that preclude unlimited land use. Surveillance will be conducted every 5 years to ensure that controls are in place.

b. Notification to states of leases involving contamination.

c. Request concurrence of U.S. Environmental Protection Agency on leases of National Priorities List (54 FR 48184) sites.

d. A statement that remedial action is complete is required in the deed.

e. If response action for which the federal government is responsible is not complete, restrictions, the response guarantee, schedule for investigation and completion of all necessary response actions, and budget assurances must be included in the deed.

f. A clause allowing the U.S. Government access to the property must be included in the deed.

g. A notice of information about hazardous substances present on the property must be included in the deed.

h. Uncontaminated parcels of land must be identified and concurred with by the EPA administrator before termination of operations.

i. A Notice of Intent with contamination information and protection needs is required to relinquish the property to the U.S. Department of Interior.

j. Transfer to the U.S. Department of Interior must indicate continuation of DOE responsibility.

k. Report on excess real property to the General Services Administration on contamination information and allowable land use.

Table 12-3. Cost estimate summary for Waste Area Group 1 "No Further Action" institutional control sites.

		$ Fiscal Year (FY)-99
FFA/CO Management and Oversight		
	WAG 1 – Management	70,926
Remediation Oversight		
	Construction Oversight	N/A
	Construction Project Management	20,807
	Remedial Action Document Preparation	N/A
	Remedial Action Report	N/A
	WAG-Wide Remedial Action 5-Year Review	N/A
Remedial Design		
	Added Institutional Controls - Land Restrictions	32,000
	Title Design Construction Document Package	58,300
Construction Subcontract	Site Characterization	17,150
	Implementing Institutional Controls (i.e., fence, signs)	94,323
CAPITAL COST SUBTOTAL		293,506
	Contingency @ 30%	88,052
TOTAL CAPITAL COST IN FY-99 DOLLARS		381,558
TOTAL CAPITAL COST IN NET PRESENT VALUE		350,769
Operations		
	WAG 1 – Management	564,474
	WAG 1 RA 5-Year Reviews	180,000
	Site Maintenance	453,000
D&D		
Surveillance and Monitoring		
OPERATION AND MAINTENANCE (O&M) COST SUBTOTAL		1,197,474
	Contingency @ 30%	359,242
TOTAL O&M COST IN FY-99 DOLLARS		1,556,717
TOTAL O&M COST IN NET PRESENT VALUE		593,685
TOTAL PROJECT COST IN NET PRESENT VALUE		944,454

Within 6 months of the signature of this ROD, a report about monitoring the effectiveness of WAG 1 institutional controls will be submitted to EPA and IDHW. An updated institutional control monitoring report will be submitted to EPA and IDHW every 5 years to support the 5-year review. The deadline for the initial and subsequent monitoring reports may be modified, subject to approval by EPA and IDHW, to accommodate the submittal of one monitoring report for all operable units and all institutional controls at WAG 1, and possibly one or more monitoring reports for all INEEL waste area groups, to thereby allow integration of different decision document signature dates. In addition, after the INEEL comprehensive approach is well established and its effectiveness has been demonstrated, the frequency of future monitoring reports may be modified, subject to approval by EPA and IDHW. At a minimum, the institutional controls monitoring report will contain the following components:

- A description of the means employed to meet WAG 1 institutional control requirements
- A description of the means employed to meet site-specific objectives, including the results of visual field inspection of all areas subject to waste site-specific restrictions
- An evaluation of the effectiveness of the approach at meeting all WAG-wide institutional control requirements and waste site-specific objectives
- A description of any deficiencies of the approach and the efforts or measures that have been or will be taken to correct problems.

The EPA and IDHW review of the institutional controls monitoring report will be complete within 30 days of submittal and follow existing procedures for agency review of secondary documents.

The DOE will notify EPA and IDHW upon the discovery of any activity that is inconsistent with institutional control objectives or of any change in the land use or land-use designation of a site addressed in the WAG 1 list of areas or locations covered by institutional controls. The DOE will work together with EPA and IDHW to determine a plan of action to rectify the situation, except when DOE believes that an activity creates an emergency situation. The DOE can respond to the emergency immediately upon notification to EPA and IDHW and need not wait for EPA or IDHW input to determine a plan of action. The DOE will identify the problems with the institutional control process, determine the changes necessary to correct the process to avoid future problems, and implement these changes after consulting with EPA and IDHW.

The DOE will identify a point of contact for implementing, maintaining, and monitoring institutional controls.

The DOE will notify EPA and IDHW at least 6 months before the transfer, sale, or lease of any property subject to institutional controls required by a decision document. Such notification will allow the involvement of EPA and IDHW in discussions to ensure that appropriate provisions are included in the conveyance documents to maintain effective institutional controls. If it is not possible for DOE to notify EPA and IDHW at least 6 months before the transfer, sale, or lease of any property subject to institutional controls, then DOE will notify EPA and IDHW as soon as possible thereafter.

The DOE will not delete or terminate any institutional control unless EPA and IDHW have concurred in the deletion or termination.

12.2 Disposition of Investigation Derived Waste

Previous CERCLA investigations and activities have generated approximately 11.33 m^3 (400 ft^3) of IDW at TAN. The IDW has been characterized as polychlorinated biphenyl (PCB)/radioactive mixed (F001-listed) wastes and are both combustible and noncombustible materials such as sample containers, personnel protective clothing, rags, plastic sheeting, etc. This waste was inadvertently commingled and subsequently boxed with PCB-free, combustible, low-level waste generated from other TAN CERCLA investigations. This has resulted in approximately 577.4 m^3 (20,392 ft^3) of IDW currently being stored in two CERCLA Waste Storage Units (CWSUs), TAN-616-000-B, located near the TSF-09 site, and TAN-624-000-A, located at LOFT. This waste will be dispositioned appropriately. Combustible material is planned to be treated at the Waste Experimental Reduction Facility (WERF) in the Year 2001.

Contaminated media generated during RD/RA activities or potential new sites will be dispositioned in accordance with regulatory requirements to achieve remediation goals consistent with remedies selected for the sites in this ROD. Costs for dispositioning this waste is not included in the cost estimate given in Table 12-4.

Table 12-4. Cost estimate summary for investigation-derived waste.

		$ Fiscal Year (FY)-99
FFA/CO Management and Oversight		
	WAG 1 – Management	210,000
Waste to WERF (90% non-PCB waste)		
	Load/Transport Waste to WERF	25,924
	WERF Incineration (No Charge – Program Funded)	N/A
Off-Site Treatment (10% PCB waste)		
	Prepare and Approve Segregation Procedure	13,686
	Segregate Waste and Repackage PCB Waste	42,329
	Ship Repackaged PCB Waste to Storage	1,500
	Weekly Inspections of Stored Waste	73,833
	Load/Prepare Waste for Off-Site Transport	70,000
	Transportation to Off-Site Treatment	11,700
	Treatment of PCB Waste	385,182
	Transport Treated Waste back to INEEL	3,900
	Dispose of Treated Waste at INEEL Repository	3,142
Subcontract for Services		
	Subcontractor Overhead and Profit	189,359
	Procurement Fees and G&A	295,400
CAPITAL COST SUBTOTAL		1,325,955
	Contingency @ 30%	397,786
TOTAL CAPITAL COST IN FY-99 DOLLARS		1,723,741
TOTAL CAPITAL COST IN NET PRESENT VALUE		1,583,937
Operations		
	WAG 1 – Management	N/A
	Annual Operations and Maintenance Reports	N/A
Decontamination and Dismantlement		N/A
Surveillance and Monitoring		N/A
OPERATION AND MAINTENANCE (O&M) COST SUBTOTAL		N/A
	Contingency @ 30%	N/A
TOTAL O&M COST IN FY-99 DOLLARS		N/A
TOTAL O&M COST IN NET PRESENT VALUE		N/A
TOTAL PROJECT COST IN NET PRESENT VALUE		1,583,937